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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Toshihiko Seike

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BIRCH STEWART KOLASCH & BIRCH  
PO BOX 747  
FALLS CHURCH, VA 22040-0747

EXAMINER

MORRISON, THOMAS A

ART UNIT

PAPER NUMBER

3653

NOTIFICATION DATE

DELIVERY MODE

12/10/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/551,581	<b>Applicant(s)</b> SEIKE ET AL.	
	<b>Examiner</b> THOMAS A. MORRISON	<b>Art Unit</b> 3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,12-14 and 16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,12-14 and 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 12-14 and 16, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Publication No. 2001-130780 (hereinafter "JP'780") and the attached machine translation of the detailed description of this Japanese reference in view of U.S. Patent No. 5,540,423 (Nakano) (hereinafter "Nakano").

Regarding claim 1, Figs. 1-4 of JP'780 show a sheet transport mechanism, comprising:

a rotation roller (2);

a plurality of driven rollers (5) which are arranged parallel to an axis of the rotation roller (2); and

a plurality of sheet transport guides (including 9 and 8), each guiding toward the rotation roller (2), a sheet to be transported between the rotation roller (2) and the driven rollers (5), each of the sheet transport guides (including 9 and 8) including a torsion coil spring (8) having a coil portion (8b) fixed to a frame (numbered paragraph [0020] of the

English translation), the frame extends along a path where the sheet is to be transported, wherein

the coil portion (8b) has a first arm portion (7 or 9) which extends to and is attached to a respective rotation shaft (6) of one of the driven rollers (5) and the coil portion (8b) has a second arm (8c) extending to and fixed to the frame (numbered paragraph [0020] of attached machine translation of the detailed description), an end of the second arm (8c) extends away from the coil portion (8b) and the end of the second arm (8c) is fixed to the frame (numbered paragraph [0020] of the attached machine translation of the detailed description) at a location along the path different from a location of the coil portion (8b),

each of the sheet transport guides (including 9 and 8) applies elastic force to each of the driven rollers (5) so that each of the driven rollers (5) is elastically biased toward the rotation roller (2). However, JP'780 does not explicitly disclose that each elastic force applied to each of the sheet transport guides is different from each other with distance from a predetermined reference position, as claimed.

Nakano discloses that it is well known in the art to adjust the force applied between each driven roller of a plurality of driven rollers (65, 65 and 65) and a respective rotation roller (62, 63, or 64) in a sheet transport mechanism (Fig. 1) so that each of these forces is different from each other, for the purpose of avoiding diagonal orientation of a sheet during feeding of such sheet through the sheet transport mechanism (Fig. 1). See, e.g., Fig. 3, col. 1, lines 47-51 and col. 4, lines 5-17 of

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Nakano. It would have been obvious to one of ordinary skill in the art at the time the invention was made to adjust the nipping force between each of the driven rollers (5) and the rotation roller (2) of JP'780 so that each of these forces is different from one another relative to a predetermined position, for the purpose of avoiding diagonal orientation of a sheet during feeding of such sheet through the sheet transport mechanism of JP'780, as taught by Nakano. As one example, Fig. 3 of Nakano shows that the predetermined reference position can be located in a central part of the shaft (67). See, e.g., Fig. 3 and col. 4, lines 15-17 of Nakano to see the nipping forces applied to rollers 63 and 64. As such, all of the limitations of claim 1 are met by JP'780 in view of Nakano.

Regarding claim 12, Fig. 3 of Nakano shows that the predetermined reference position can be located in a central part of the shaft (67) of a rotation roller. See, e.g., Fig. 3 and col. 4, lines 15-17 of Nakano to see the nipping forces applied to rollers 63 and 64.

Regarding claim 13, Fig 3 of Nakano shows that the predetermined reference position can be located in the left hand end portion of the shaft (67) of a rotation roller. See, e.g., Fig. 3 and col. 4, lines 15-17 of Nakano to see the nipping forces applied to all three rollers 62, 63 and 64.

Regarding claim 14, Figs. 1-4 of JP'780 show a sheet transport mechanism, comprising:

a rotation roller (2);

a plurality of driven rollers (5) which are arranged parallel to an axis of the rotation roller (2); and

a plurality of sheet transport guides (including 9 and 8), each guiding toward the rotation roller (2), a sheet to be transported between the rotation roller (2) and the driven rollers (5), each of the sheet transport guides (including 9 and 8) including a torsion coil spring (8) having a coil portion fixed to a frame (numbered paragraph [0020] of the attached machine translation of the detailed description), wherein the coil portion has a first arm portion (9 or 7) which extends to and is attached to a respective rotation shaft (6) of one of the driven rollers (5) and the coil portion has a second arm (8c) extending to and fixed to the frame. In particular, numbered paragraph [0020] of the attached machine translation of the detailed description explains that portion 8c of each torsion spring part 8 is fixed to a frame, as claimed.

Also, each of the sheet transport guides (including 9 and 8) applies elastic force to one of the driven rollers (5) so that each of the driven rollers (5) is elastically biased toward the rotation roller (2). However, JP'780 does not explicitly disclose that each elastic force applied to each of the sheet transport guides is different from each other with distance from a predetermined reference position, as claimed.

Nakano discloses that it is well known in the art to adjust the force applied between each driven roller of a plurality of driven rollers (65, 65 and 65) and a respective rotation roller (62, 63, or 64) in a sheet transport mechanism (Fig. 1) so that each of these forces is different from each other relative to a predetermined position, for

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the purpose of avoiding diagonal orientation of a sheet during feeding of such sheet through the sheet transport mechanism (Fig. 1). See, e.g., Fig. 3, col. 1, lines 47-51 and col. 4, lines 5-17 of Nakano. It would have been obvious to one of ordinary skill in the art at the time the invention was made to adjust the nipping force between each of the driven rollers (5) and the rotation roller (2) of JP'780 so that each of these forces is different from one another, for the purpose of avoiding diagonal orientation of a sheet during feeding of such sheet through the sheet transport mechanism of JP'780, as taught by Nakano. As one example, Fig. 3 of Nakano shows that the predetermined reference position can be located in a central part of the shaft (67). See, e.g., Fig. 3 and col. 4, lines 15-17 of Nakano to see the nipping forces applied to rollers 63 and 64. Thus, all of the limitations of claim 14 are met by JP'780 and the attached machine translation of the detailed description of this Japanese reference in view of Nakano.

Regarding claim 16, Figs. 1-4 of JP'780 show that an end of the second arm (8c) extends away from the coil portion (including 8b) and the end of the second arm (8c) is fixed to the frame at a location different from a location of the coil portion (8b). See also numbered paragraph [0020] of the attached machine translation of the detailed description.

### ***Response to Arguments***

2. Applicant's arguments filed 7/10/09 have been fully considered but they are not persuasive.

In response to applicant's statements about element 10 of JP'780 in the arguments for claims 1 and 14, it is noted that element 10 is **not** relied upon by the

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examiner to disclose the recited second arm in claims 1 and 14. Rather, element 8c is relied upon by the examiner to disclose this second arm. Figs. 1-3 of JP'780 clearly show that the second arm (8c) extends away from a coil portion (including 8b) of coil spring (8), as claimed. Moreover, numbered paragraph [0020] of the attached machine translation of the detailed description of JP'780 explicitly states that "The **upper arm part 8c** of each torsion spring part 8 **is caught by the machine frame back members** of a printer from the undersurface side, **and is restrained**". (emphasis added). In other words, the upper arm 8c (second arm) is caught by and restrained by the frame (i.e., fixed to the frame) at a location that is different from the location of the coil portion (including 8b) of the coil spring (8). Thus, all of the limitations of claims 1 and 14 are met by the cited combination of references.

The rejections of the dependent claims 12-13 and 16 are outlined above.

With regard to applicant's arguments for claims 1 and 16, Figs. 1-4 of JP'780 and numbered paragraph [0020] of the attached machine translation of the detailed description of JP'780 in view of Nakano teaches all of the limitations of claims 1 and 16. The frame (including element 11 and the frame described in numbered paragraph [0020] of the attached machine translation of the detailed description of JP'780) extends along a path where the sheet is to be transported. Element 11 of the frame, as well as the part of the frame that is fixed to element 8c both extend along a path where the sheet is to be transported. Also, Figs. 1-4 of JP'780 show that the coil portion (including 8b) has a first arm portion (7 or 9) which extends to and is attached to a respective rotation shaft (6) of one of the driven rollers (5). Moreover, the coil portion (including



8b) has a second arm (8c) extending to and fixed to the frame (see numbered paragraph [0020] of the attached machine translation of the detailed description of JP'780 for an explanation of how element 8c is fixed to the frame). In addition, Figs. 1-4 of JP'780 and numbered paragraph [0020] of the attached machine translation of the detailed description of JP'780 together disclose that an end of the second arm (8c) extends away from the coil portion (including 8b) and the end of the second arm (8c) is fixed to the frame at a location along the path different from a location of the coil portion (including 8b). More specifically, Figs. 1-4 of JP'780 show that element 8c is at a different location than the coil portion (including 8b). Also, numbered paragraph [0020] of the attached machine translation of the detailed description of JP'780 explicitly discloses that element 8c is fixed to the frame at this different location. The Nakano reference provides a teaching for making each elastic force applied to each of the sheet transport guides different from each other with distance from a predetermined reference point, as claimed. Thus, all of the limitations of claims 1 and 16 are met by the cited combination of references.

### ***Conclusion***

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS A. MORRISON whose telephone number is (571)272-7221. The examiner can normally be reached on M-F, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on (571) 272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Patrick H. Mackey/  
Supervisory Patent Examiner, Art  
Unit 3653

12/3/09